CLAIMS

[1] A thermoplastic elastomer composition comprising a thermoplastic resin having a polar group and an ethylene α -olefin elastomer having a functional group.

The thermoplastic elastomer composition according to claim 1, wherein the ethylene α -olefin elastomer having the functional group is a random copolymer obtained by copolymerizing ethylene, an α -olefin having 3 to 10 carbon atoms, an unsaturated monomer having the functional group and an optional non-conjugated diene.

[3] The thermoplastic elastomer composition according to claim 2, wherein the functional group in the unsaturated monomer having the functional group is a carboxylic group, hydroxyl group, epoxy group or sulfonic group.

The thermoplastic elastomer composition according to claim 2 or 3, wherein the ethylene α -olefin elastomer having the functional group is a random copolymer obtained by copolymerizing 35 to 94.99 mol% of ethylene, 5 to 50 mol% of the α -olefin having 3 to 10 carbon atoms, 0.01 to 5 mol% of the unsaturated monomer having the functional group and 0 to 10 mol% of the non-conjugated diene.

[5] The thermoplastic elastomer composition according to any one of claims 1 to 4, wherein the unsaturated monomer having the functional group is a

functional cyclic compound represented by the following general formula (1):

[Chemical Formula 1]

General Formula (1)

$$(CH_2)_p - Y^2$$

[In the general formula (1), R^1 is a hydrogen atom or a hydrocarbon group having 1 to 10 carbon atoms, Y^1 , Y^2 and Y^3 are, independently of one another, a hydrogen atom, a hydrocarbon group having 1 to 10 carbon atoms or -COOH, with the proviso that at least one of Y^1 , Y^2 and Y^3 is -COOH, and when at least two of Y^1 , Y^2 and Y^3 are -COOH, they may be bonded to each other to form an acid anhydride (-CO-(O)-CO-), o is an integer of 0 to 2, and p is an integer of 0 to 5.]

[6]

The thermoplastic elastomer composition according to any one of claims 1 to 4, wherein the thermoplastic resin having the polar group is at least one resin selected from the group consisting of aminoacrylamide polymers, ethylene vinyl acetate copolymers, polyethylene oxide, ethylene acrylic acid copolymers, acrylonitrile butadiene styrene terpolymers, acrylonitrile chlorinated polyethylene ethylene terpolymers, acrylonitrile styrene copolymers, acrylonitrile styrene copolymers, acrylonitrile styrene acrylate resins,

acrylic resins, methacrylic resins, polyamide resins, polycarbonate, vinyl alcohol resins, vinyl acetal resins, methyl methacrylate resins, polyether resins, polyester resins and polyacrylates.

- [7] The thermoplastic elastomer composition according to any one of claims 1 to 6, wherein a proportion of the thermoplastic resin having the polar group to the ethylene $\cdot \alpha$ -olefin elastomer having the functional group is 5:95 to 90:10 in terms of a weight ratio.
- The thermoplastic elastomer composition according to any one of claims 1 to 7, wherein a softening agent is contained in a proportion of 0 to 200 parts by weight per 100 parts by weight of the total of the thermoplastic resin having the polar group and the ethylene $\cdot \alpha$ -olefin elastomer having the functional group.
- [9] A process for preparing the thermoplastic elastomer composition according to any one of claims 1 to 8, the process comprising the step of subjecting a thermoplastic resin having a polar group and an ethylene $\cdot \alpha$ -olefin elastomer having a functional group to a dynamic heat treatment in the presence of a crosslinking agent.
- [10] A molded or formed product formed of the thermoplastic elastomer composition according to any one of claims 1 to 8.